An Investigation of Methodologies for Fiberglass Resin Removal from Bone

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POSTER

With a lack of information in the literature concerning fiberglass coating of bones, a way to correct the improper treatment of human skeletal remains housed at MacEwan University was unclear. These remains were coated in fiberglass (Fig.1) before coming to MacEwan. By using pig bones as an analogy for the human remains, this project explores the use of solvents for removing fiberglass from the bones. Using acetone, ethyl acetate, and dichloromethane the bones were tested using two methods; a successful method of soaking and an unsuccessful method of application by brush. All three chemical soaks worked to various degrees. Acetone and ethyl acetate produced results in the longest amount of time and required more mechanical assistance. Dichloromethane was easiest and fastest working and was chosen for a small scale test on the human osteological remains. The right arm of the human was used to test if the old age of the resin would affect the results. Once the fiberglass was removed from the remains, acetone was used to clean paint from the bones. The results of these test have provided a successful method to remove the fiberglass (Fig.2) and allow for the remains to be a usable part of the teaching collection. This work was done with assistance from the biology and chemistry departments and highlights the importance of interdisciplinary work

Figure 1: Inital state of human remains coated in fiberglass

Figure 2: Right carpals and metacarpals after dichloromethane soak to remove fiberglass and acetone rubbing to remove paint.